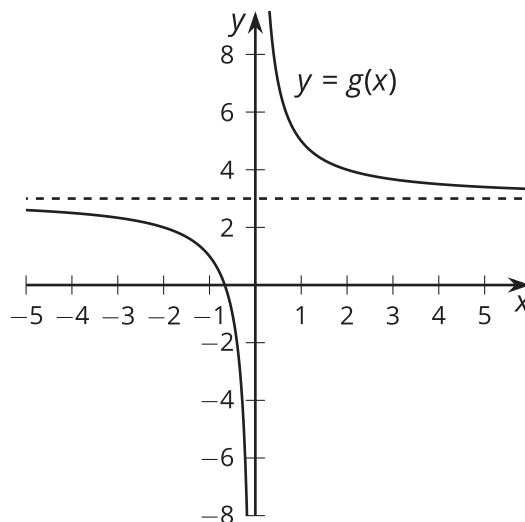
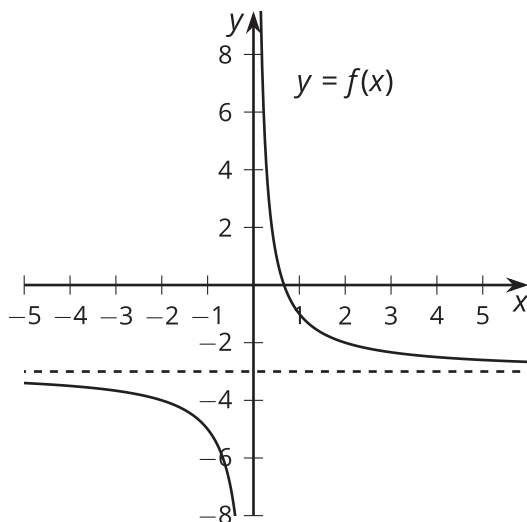
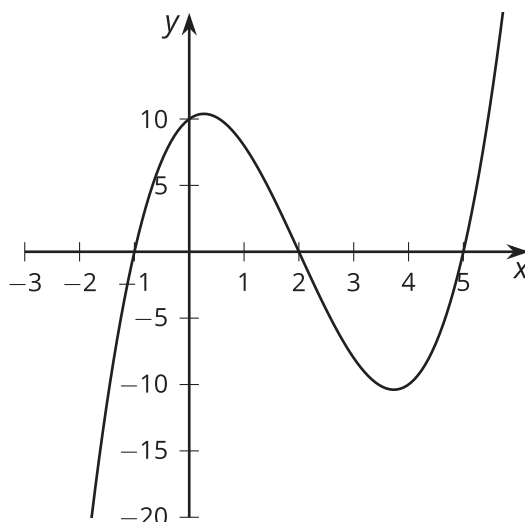


Lesson 18 Practice Problems

1. Rewrite the rational function $g(x) = \frac{x-4}{x}$ in the form $g(x) = c + \frac{r}{x}$, where c and r are constants.
2. The average cost (in dollars) per mile for riding x miles in a cab is $c(x) = \frac{2.5+2x}{x}$. As x gets larger and larger, what does the end behavior of the function tell you about the situation?
3. The graphs of two rational functions f and g are shown. One of them is given by the expression $\frac{2-3x}{x}$. Which graph is it? Explain how you know.



4. Which polynomial function's graph is shown here?



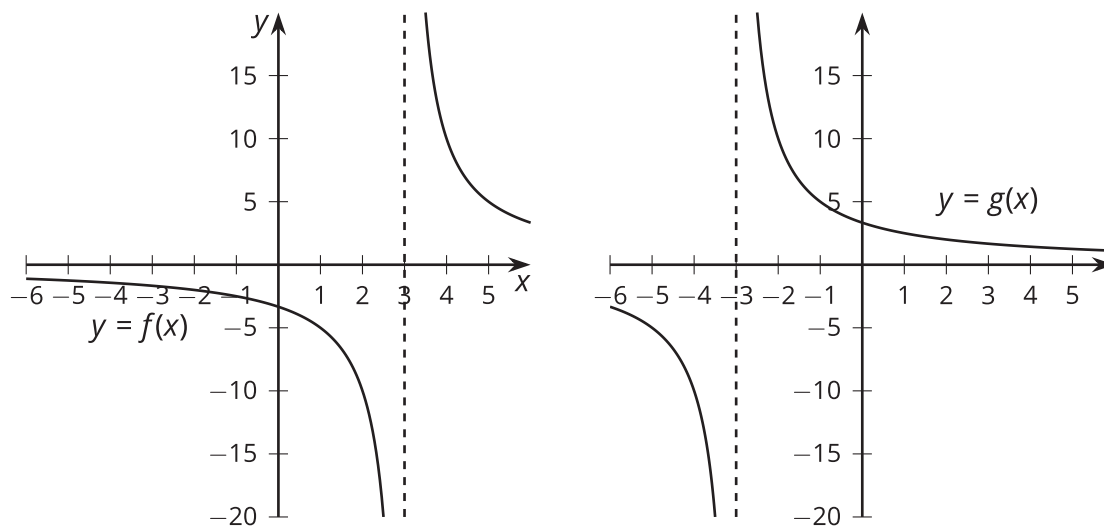
- A. $f(x) = (x + 1)(x + 2)(x + 5)$
- B. $f(x) = (x + 1)(x - 2)(x - 5)$
- C. $f(x) = (x - 1)(x + 2)(x + 5)$
- D. $f(x) = (x - 1)(x - 2)(x - 5)$

(From Unit 2, Lesson 7.)

5. State the degree and end behavior of $f(x) = 5x^3 - 2x^4 - 6x^2 - 3x + 7$. Explain or show your reasoning.

(From Unit 2, Lesson 9.)

6. The graphs of two rational functions f and g are shown. Which function must be given by the expression of $\frac{10}{x-3}$? Explain how you know.



(From Unit 2, Lesson 17.)